

THE AMENDMENTS

In the Claims

Claims 1-47 (cancelled)

48. (Currently amended) A method of diagnosing breast cancer in a human patient, the method comprising:

(i) obtaining a sample comprising breast tissue from a human patient; and

(ii) detecting the level of a polynucleotide encoding a BCH1 polypeptide in the sample, wherein the polynucleotide is an mRNA ~~at least 95%~~ identical to the nucleic acid sequence disclosed in SEQ ID NO: 23, and wherein an increase in the level of the polynucleotide relative to normal breast tissue is indicative of cancer.

49. (Cancelled)

50. (Cancelled)

51. (Cancelled)

52. (Previously presented) The method of claim 48, wherein the method further comprises isolating nucleic acids from the sample.

53. (Cancelled)

54. (Cancelled)

55. (Previously presented) The method of claim 48, wherein the detecting step comprises hybridizing a labeled probe to the polynucleotide.

56. (Previously presented) The method of claim 55, wherein the probe is labeled with a fluorescent label.

57. (Previously presented) The method of claim 48, wherein the detecting step comprises hybridizing the polynucleotide to a probe that is immobilized on a solid surface.

58. (Previously presented) The method of claim 48, wherein the detecting step comprises contacting the sample with a biochip, wherein the biochip comprises the nucleic acid sequence disclosed in SEQ ID NO: 23.